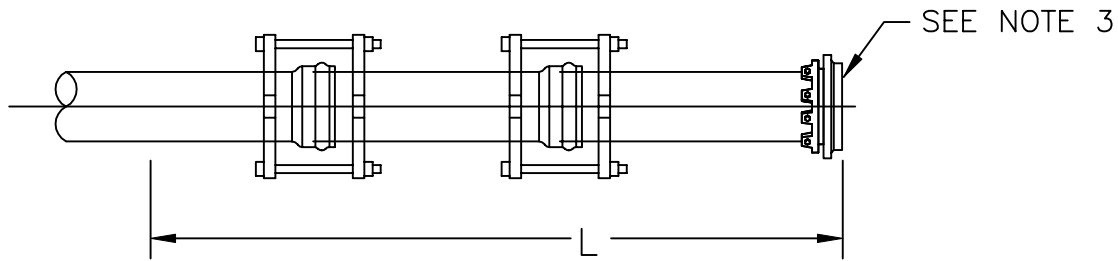


# DEAD END FOR DUCTILE IRON PIPE



1. ALL JOINTS WITHIN LENGTH "L" MUST BE RESTRAINED. USE RETAINER GLAND AT MECHANICAL JOINTS AND HARNESS WITH PUSH-ON PIPE PER CITY STANDARD SPECIFICATIONS.
2. FOR TEST PRESSURES AND LAYING CONDITIONS, SEE SECTION OF GENERAL NOTES FOR USE OF RESTRAINED JOINT LENGTHS.
3. WHEN APPROVED, CONCRETE THRUST BLOCK MAY BE USED AS SHOWN ON STANDARD DRAWING W-6.

PIPE SIZE

4	6	8	10	12	14	16
33	47	61	73	86	98	111

RESTRAINED LENGTHS, "L" (IN FEET)

## GENERAL NOTES ON USE OF RESTRAINED JOINT LENGTHS

THESE RESTRAINED LENGTH CALCULATIONS ARE BASED ON THE FOLLOWING DESIGN CRITERIA

1. THREE (3) FEET MINIMUM DEPTH OF COVER
2. A SAFETY FACTOR OF 1.5
3. SOIL TYPE OF SM--SILTY GRAVEL AND SILTY SANDS AS DEFINED BY ASTM D-2487
4. TRENCH COMPACTION OF TYPE 5 - PIPE BEDDED IN COMPACTED GRANULAR MATERIAL TO THE CENTER LINE OF PIPE, 4 INCHES MINIMUM UNDER PIPE. COMPACTED GRANULAR MATERIAL OR SELECT MATERIAL TO TOP OF THE PIPE. (APPROXIMATELY 90 PERCENT STANDARD PROCTOR DENSITY, AASHTO T-99)
5. TEST PRESSURES OF 200 PSI FOR THE 4 THROUGH 16 INCH SIZES

IF ACTUAL CONDITIONS DIFFER FROM THOSE LISTED ABOVE OR THE REQUIRED RESTRAINED LENGTH CANNOT BE MET, CONSULT THE DESIGN ENGINEER FOR MODIFICATIONS TO THE RESTRAINED LENGTHS OR DESIGN.